

PCT National Stage Application
Docket No.: 32860-000263/US

mechanism cooperating with the leadscrew, in addition to the main transmission mechanism, and a relative movement generated by a drive of a support motor being mounted at a fixed location and for driving the further transmission mechanism, comprising:

synchronously driving the support motor, in rotation as a whole, by the main motor and with the aid of a mechanical coupling of the support and main.

2. (Amended) The method as claimed in claim 1, further comprising braking the support motor in an event of a feed of zero.

3. (Amended) A feed device for a working machine for surface machining of a rotationally symmetric component, comprising:

a stationarily mounted main motor having a main transmission mechanism;

at least one tool support receiving a drive movement from the main transmission mechanism and which rotates about the component;

at least one leadscrew for actuating the at least one tool support;

a support mounting, on the component, for supporting at least the at least one tool support; and

a fixed support motor having a further transmission mechanism for driving at least the at least one leadscrew,

wherein a housing of the support motor is mounted rotatably and is coupled mechanically to the main motor, the support motor being capable of being driven synchronously in rotation by the main motor.

4. (Amended) The feed device as claimed in claim 3, wherein the main transmission mechanism is an externally toothed gear ring driven by a pinion seated on a motor shaft of the main motor.

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5. (Amended) The feed device as claimed in claim 3, wherein the main transmission mechanism is an externally toothed gear ring driven by a motor shaft of the main motor via a toothed belt.

6. (Amended) The feed device as claimed in claim 3, wherein the further transmission mechanism is an externally and internally toothed gear ring driven by a pinion seated on a motor shaft of the support motor.

7. (Amended) The feed device as claimed in claim 3, wherein the further transmission mechanism is an externally and internally toothed gear ring driven by the motor shaft of a support motor via a toothed belt.

8. (Amended) The feed device as claimed in claim 3, wherein support motor is equipped with a slip ring set for the transmission of power to windings thereof.

9. (Amended) The feed device as claimed in claim 3, wherein the further transmission mechanism is mounted rotatably on a support of the main motor.

10. (Amended) The feed device as claimed in claim 3, wherein the further transmission mechanism is mounted rotatably on a support mounting of the tool support.

11. (Amended) The feed device as claimed in claim 3, wherein the main motor is coupled mechanically to the housing of the support motor via toothed belts.

12. (Amended) The feed device as claimed in claim 3, wherein the main motor is coupled mechanically to the housing of the support motor via gearwheel mechanisms.

13. (Amended) The feed device as claimed in claim 3, wherein the support motor is a brake motor.

Please add the following new claims:

-- 14. The feed device as claimed in claim 4, wherein the support motor is a brake

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motor.

15. The feed device as claimed in claim 5, wherein the support motor is a brake motor.

16. The feed device as claimed in claim 6, wherein the support motor is a brake motor.

17. The feed device as claimed in claim 7, wherein the support motor is a brake motor.

18. The feed device as claimed in claim 4, wherein the further transmission mechanism is an externally and internally toothed gear ring driven by a pinion seated on a motor shaft of the support motor.

19. The feed device as claimed in claim 5, wherein the further transmission mechanism is an externally and internally toothed gear ring driven by the motor shaft of a support motor via a toothed belt.

20. The feed device as claimed in claim 4, wherein the main motor is coupled mechanically to the housing of the support motor via gearwheel mechanisms. --

REMARKS

Claims 1-20 are now present in this application, with new claims 14-20 being added by the present Preliminary Amendment. It should be noted that the amendments to original claims 1-13 of the present application are non-narrowing amendments, made solely to place the claims in proper form for U.S. practice and not to overcome any prior art or for any other statutory considerations. For example, amendments have been made to broaden the claims; remove reference numerals in the claims; remove the European phrase "characterized in that";